

Yearly Operational Plan

2013

Pioneer Valley Railroad

**100 Springdale Road
Westfield MA 01085**

Prepared by:

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ABSTRACT

This Yearly Operational Plan (YOP) describes intended vegetation management operations for the Pioneer Valley Railroad's rights-of-way scheduled for vegetation maintenance during calendar year 2013 in compliance with the Commonwealth of Massachusetts Rights-of-Way Management Regulations 333 CMR 11.00. This YOP is consistent with the Vegetation Management Plan (VMP) prepared by the railroad for the period 2011 through 2015 which has been approved by the Massachusetts Department of Agricultural Resources also in accordance with 333 CMR 11.00.

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INTRODUCTION

Federal and State laws require railroads to manage vegetation within their rights-of-way (ROW) to help ensure the safe passage of people, material, and goods. Federal regulation specifically mandates that the safe operation of the Pioneer Valley Railroad (PVR) be guaranteed by regular inspection and maintenance. Vegetation on the railroad must be controlled in order to accommodate such inspection and maintenance, ensure that it does not become a fire hazard, interfere with visibility, or impede direct visual inspection of the track structure. Vegetation must be managed also to allow for proper drainage of the track and ballast structure, to prevent tree and branch damage to cargo, to provide safe footing and working conditions for trackside personnel, and to avoid hindering control and braking of trains.

The purpose of 333 CMR 11.00, Rights of Way Management, is to promote the implementation of Integrated Pest Management techniques and to establish standards, requirements, and procedures necessary to minimize the risk of unreasonable adverse effects on human health and the environment associated with the use of herbicides to maintain vegetation control along rights-of-way. These regulations establish procedures which guarantee ample opportunity for public and municipal agency review and input on rights-of-way management plans.

A Yearly Operational Plan (YOP) must be submitted to the Massachusetts Department of Agricultural Resources (DAR) every year herbicides are intended for use to maintain rights-of-way. The YOP provides a description of the vegetation management program for the year. This YOP is a companion document to the Vegetation Management Plan (VMP) earlier approved by DAR. The VMP is the long term management plan that describes the intended program for vegetation control over a five-year period.

Upon receipt of this YOP, DAR will publish a notice in the Environmental Monitor. The applicant has provided a copy of the YOP and Environmental Monitor notice to the Board of Health, Conservation Commission, and the chief elected municipal official for each city or town in which the herbicide treatment is proposed. DAR allows a 45 day comment period on the proposed YOP beginning with publication of the notice in the Environmental Monitor and receipt of the YOP and Environmental Monitor notice by each municipality.

Any comments on this YOP should be directed to AMEC Environment & Infrastructure, att: Stephen Herzog, 2 Robbins Road, Westford MA 01886, stephen.herzog@amec.com, or to the railroad contact person listed on page 3.

Municipalities where vegetation control treatments will be made in 2013:

Westfield
West Springfield
Holyoke

I. THE COMPANY WHICH WILL PERFORM HERBICIDE TREATMENT

This company or contractor will perform the herbicide treatment. Applicators are certified by the Department of Agricultural Resources in the applicator category Right-of-Way Pest Control.

Company Name	<u>RWC, Inc.</u>
Address	<u>P.O. Box 876</u> <u>248 Lockhouse Road</u> <u>Westfield, MA 01086</u>
Telephone #	<u>(413) 562-5681</u>
Contact Person(s)	<u>Brian Chateauvert</u>
Email	<u>bchateauvert@rwcinc.biz</u>

II. INDIVIDUAL REPRESENTING APPLICANT AND SUPERVISING THE YOP

Individual supervising execution of the YOP and representing the railroad.

Name & Title	<u>Justin T. Tilton, Operations Supervisor</u>
Address	<u>Pioneer Valley Railroad</u> <u>100 Springdale Ave</u> <u>Westfield MA 01085</u>
Telephone #	<u>(413) 568-3331</u>

III. HERBICIDES PROPOSED INCLUDING APPLICATION RATES, CARRIERS, ADJUVANTS, AND APPLICATION TECHNIQUES

Weed Control Herbicide Program for the Roadbed

The post-emergent herbicide program to be implemented in 2013 is designed to keep the rail area, ballast section and shoulder, yards, switches, signals, and highway grade crossings weed-free. Areas scheduled for weed control treatments will first be inspected for density of target vegetation to determine appropriate control methods. The following post-emergent herbicides are proposed for use in 2013. Herbicide Fact Sheets for the herbicides proposed are contained in Appendix A.

Location	Herbicide(s)	Carriers or Adjuvants	Application Technique	Application Rate
Sensitive area buffer zone	Aquaneat		Foliar	2 qt/acre
	Polaris		Foliar	3 pt/acre
		More	Foliar	2-5 oz/100 gal
		Incite80	Foliar	2-5 oz/100 gal
Non-sensitive areas	Aquaneat		Foliar	2 qt /acre
	Polaris		Foliar	3 pt/acre
		More	Foliar	2-5 oz/100 gal
		Incite80	Foliar	2-5 oz/100 gal

Brush Control Program for Areas Adjacent to the Roadbed

The brush control program is designed to limit the growth of trees and other woody vegetation in areas adjacent to the roadbed. Areas scheduled for brush control treatments are limited to target vegetation which obscures visibility or interferes with railroad signs, signals, or communication wires. Herbicide Fact Sheets for herbicides proposed are contained in Appendix A.

Location	Herbicide(s)	Carriers or Adjuvants	Application Technique	Application Rate
Non-sensitive areas	Aquaneat		Foliar	4 qt/acre
	Escort XP		Foliar	2 oz/acre
		More	Foliar	2-5 oz/100 gal
		Incite80	Foliar	2-5 oz/100 gal

IV. HERBICIDE APPLICATION TECHNIQUES, ALTERNATIVE CONTROL PROCEDURES, AND INTENDED SCHEDULE.

Herbicide application within the Pioneer Valley Railroad's railroad right-of-way will be performed using low pressure application from a specialized hi-rail truck equipped with a spray boom. This method is suitable for application within the buffer zone, or restricted application zone, of sensitive areas, as defined in 333 CMR 11.04. The spray vehicle is equipped with spray nozzles and controls to allow for treatment of the entire roadbed, or to selectively treat individual sections of the ballast and ballast shoulders. Within sensitive areas where spraying is not permitted, a container will be used to catch any accidental dripping of herbicide. This trough-shaped apparatus mounted just behind the boom will be hydraulically lowered to sit underneath the spray nozzles while the vehicle is traveling through areas where herbicide spraying is prohibited.

In order to assist in rapid identification of sensitive areas in the field, a pilot vehicle will proceed ahead of the applicator vehicle in order to signal the location of sensitive areas. The pilot will carry maps of the rights-of-way and all sensitive areas to assist in accurate identification of these areas in the field.

In order to provide greater mobility and decrease the amount of time required to apply the herbicide mixture in the railroad yard areas, a vehicle equipped with hoses will be used in these areas. In compliance with the regulations for herbicide application in sensitive areas, the spray pressure will not exceed 60 psi.

ALTERNATIVE CONTROL PROCEDURES

No alternative vegetation control methods are feasible or effective within the track areas of the right-of-way. No vegetation control is proposed in ballast areas where herbicide use is prohibited.

Touch-up techniques control any target vegetation within the ballast that may have been missed or not treated during the initial phase. Control of vines and other vegetation that might creep onto the ballast from roots growing outside the original treatment boundaries can be managed as a selective, foliage, or spot spray. No more than 10% of the initially identified target vegetation on the right-of-way in any municipality may be treated during a touch-up application and the total amount of herbicide applied in any one year shall not exceed the limits specified by the label or YOP [per 11.03(8)(c)].

SCHEDULE

Pioneer Valley Railroad intends to commence application of herbicides on June 3, 2013. Application in an area may be delayed by rain or windy conditions. Application will conclude on or before July 5, 2013. Any touch-up spraying that may be required will commence after August 1, 2013 and will conclude by August 30, 2013.

V. IDENTIFICATION OF TARGET VEGETATION

Whenever and wherever possible an integrated approach to vegetation management will be implemented by encouraging plant communities that hinder the growth of target vegetation. Prior to a herbicide application, a review will be made noting location, density, and type of vegetation present. This information will be used to develop a herbicide application program that will be effective against target vegetation and minimize the amount of herbicide used.

In accordance with the Code of Federal Regulations, 49 Part 213 - Track Safety Standards, all vegetation growing in the ballast and ballast shoulder; in yards; and around switches, signals, signs, and highway grade crossings is considered target vegetation and must be controlled so that it does not:

- a) become a fire hazard to track-carrying structures;
- b) obstruct visibility of railroad signs and signals;
- c) interfere with railroad employees performing normal trackside duties;
- d) prevent proper functioning of signal and communication lines; and
- e) prevent railroad employees from visually inspecting moving equipment from their normal duty stations.

Woody vegetation growing in areas adjacent to the shoulder will be managed to promote the growth of low-growing shrubs. Targeted woody vegetation will be that which has the potential to block visibility or invade the roadbed and/or overhead communication lines. Target vegetation will include but not be limited to the following species:

Ailanthus	Eastern Redcedar
American Basswood	Elm
American Beech	Flowering Dogwood
American Hornbeam	Hawthorn
Apple	Hickory
Ash	Honey Locust
Aspen	Maple
Birch	Northern Catalpa
Black Locust	Oak
Black Tupelo	Pine
Black Walnut	Poplar
Buckthorn	Sassafras
Butternut	Shadbush
Cherry	Spruce
Eastern Hop Hornbeam	Sumac

VI. FLAGGING METHODS TO DESIGNATE SENSITIVE AREAS ON THE ROW

Sensitive areas, no-spray areas, limited-spray areas, and non-sensitive areas not readily identifiable in the field are marked at their boundaries with permanent color-coded markers as described below. Sensitive areas considered to be readily identifiable in the field will not be marked. PVRP has determined that the following areas are readily identifiable in the field: inhabited areas; agricultural areas; and areas of intermittent standing or flowing water, such as drainage ditches, in which herbicide application is prohibited in the event that standing or flowing water is present at the time of application (not including intermittent tributaries to a Class A surface water source, whether in a natural or artificial channel, which are mapped as restricted).

Sensitive Areas, as defined in 333 CMR 11.04, are any areas within Rights-of-Way, including No-Spray and Limited-Spray Areas, in which public health, environmental, or agricultural concerns warrant special protection to further minimize risks of unreasonable adverse effects. Sensitive areas are described below.

No-Spray areas are those areas in which any herbicide spraying is prohibited. These include the following areas when they are within a right-of-way and within:

- (a) any Zone I area around a public water supply wellhead;
- (b) 100 feet of any Class A Surface Water Source;
- (c) 100 feet of any tributary or associated surface water body where the tributary or associated surface water body runs within 400 feet of a Class A surface water source;
- (d) ten feet of any tributary or associated surface water body where the tributary or associated surface water body is at a distance greater than 400 feet from a Class A surface water source;
- (e) a lateral distance of 100 feet for 400 feet upstream, on both sides of the river, of a Class B Drinking Water Intake;
- (f) 50 feet of any identified Private Well;
- (g) ten feet of any Wetlands or Water Over Wetlands;
- (h) ten feet of the mean annual high-water line of any river; and
- (i) ten feet of any Certified Vernal Pool.

Limited-Spray areas are those in which spraying is restricted to either one annual application (one-year limited spray), or one application in 24 months (2-year limited spray), of an herbicide through low pressure foliar techniques. These limited spray areas consist of the following areas when they are within a right-of-way and within:

- (a) any Zone II or Interim Wellhead Protection Area;
- (b) between 100 and 400 feet from any Class A Surface Water Source;
- (c) between ten and 200 feet of any tributary or associated surface water body where the tributary or associated surface water body runs outside the Zone A for the Class A surface water source;
- (d) a lateral distance of between 100 and 200 feet for 400 feet upstream, on both sides of the river, of a Class B Drinking Water Intake;

- (e) a distance of between 50 and 100 feet of any identified Private Well;
- (f) a distance of between 10 and 100 feet of any Wetlands or Water Over Wetlands;
- (g) a distance of between ten feet from the mean annual high water line of any river and the outer boundary of the Riverfront Area;
- (h) a distance of between ten feet from any Certified Vernal Pool and the outer boundary of any Certified Vernal Pool Habitat; and
- (i) a distance of 100 feet of any Agricultural or Inhabited Area.

Non-sensitive areas are upland and/or track without proximate sensitive areas, and do not require specific precautions or herbicide restrictions.

Sensitive areas, no-spray areas, limited-spray areas, and non-sensitive areas will be marked at their boundaries with permanent color-coded markers by one or any combination of the following:

- color-coded signs attached to posts
- color-coded signs attached to the railroad ties
- color-coded painted rail sections and/or ties

Sensitive and non-sensitive areas will be designated by the following color-codes:

- white: non-sensitive areas
- blue: sensitive area in which a minimum of 12 months shall elapse between herbicide applications
- double or dark blue: sensitive areas in which a minimum of 24 months shall elapse between herbicide applications.
- yellow: no spray zone

VII. PROCEDURES AND LOCATIONS FOR HANDLING, MIXING, AND LOADING OF HERBICIDE CONCENTRATES

The herbicide application crew will wear protective clothing and personal safety equipment when mixing, handling, loading, or applying herbicide, including standard work clothing or coveralls, work gloves, and work boots. Latex or nitrile rubber gloves, as well as eye goggles, are recommended to be worn during mixing of herbicide concentrate because some herbicide concentrates may cause mild eye or skin irritations.

Mixing and use of herbicide shall be consistent with the labeling instructions included on the packaging. The herbicide mix will be prepared from herbicide concentrate and water. In compliance with the regulations, the handling, mixing and/or loading of this material will not occur within 100 feet of any sensitive area. Wherever and whenever possible, the herbicide applicator will prepare the herbicide mix on non-porous surfaces, such as pavement or concrete.

Sources of Water and Safeguards to Prevent Contamination

Water used for herbicide mix will be obtained from hydrants and freshwater sources. During the herbicide mix preparations and during herbicide application, strict adherence to the following safeguards will be maintained:

- 1) Water will be obtained using hoses equipped with anti-siphon devices to eliminate herbicide backflow as described below.
 - a) Hoses used to extract water from water bodies will be equipped with two such devices: one will be found directly behind the mouth of the hose and another will be at the coupling which joins the hose to the mix tank.
 - b) Hoses used to extract water from the hydrant will utilize the same setup as described above, except that a third anti-siphon device will be found within the coupling joining the hose to the hydrant.
- 2) The herbicide concentrate will not be added to the tank until the water has been obtained and the application apparatus is at least 100 feet outside a sensitive area.

Disposal of Herbicidal Wastes

Disposal of all herbicidal wastes will be the responsibility of the licensed applicator. It is the applicator's responsibility to ensure that such disposal is carried out in an environmentally sensitive manner, in compliance with all Federal and State regulations and guidelines.

VIII. EMERGENCY CONTACTS

In the event of a spill or emergency, information on safety precautions and cleanup procedures may be obtained from the following sources:

Herbicide Label

Herbicide Fact Sheet

Herbicide Material Safety Data Sheet

Chemtrec (chemical emergency response specialist) (800) 424-9300

Massachusetts Pesticide Bureau (617) 626-1782

Massachusetts Department of Environmental Protection (617) 292-5500

EPA Pesticide Hotline (800) 858-7378

Massachusetts Poison Control Center (800) 682-9211

Local Community Chief of Police and/or Fire Chief

Holyoke	(413) 536-0111
West Springfield	(413) 732-7421
Westfield	(413) 562-5411

APPENDICES

- A. Herbicides approved by the Department, herbicide labels, and MSDS
- B. Maps of the ROW and Sensitive areas not readily identifiable in the field

APPENDIX A

Herbicides Proposed for Use in 2013

Below is a list of herbicides for potential use in 2013 under this YOP. For a list of the exact products and rates of application please refer to Section III of this YOP.

MANUFACTURER	PRODUCT NAME	ACTIVE INGREDIENT(S)	EPA REGISTRATION NUMBER
Nufarm	Aquaneat	Glyphosate, N-phosphonomethylglycine	228-365
Nufarm	Polaris	Isopropylamine salt of Imazapyr	228-534

LABELS & MSDS SHEETS:

Product labels and Material Safety Data Sheets are available on the internet through the web site of Crop Data Management Systems, Inc.

1. Open: <http://www.cdms.net/LabelsMsds/LMDefault.aspx>
2. In the "Brand Name" **Search bar**, enter the **Product Name** and press **Search**
3. A list of products will appear. Reference the **EPA Registration Number** to the product in order to locate the correct variation.

HERBICIDE FACT SHEETS:

Massachusetts DAR Herbicide Fact Sheets are also available on the internet.

1. <http://www.mass.gov/eea/agencies/agr/pesticides/rights-of-way-sensitive-area-materials-list.html>
2. Under the **Sensitive Area Materials List** choose the **Active Ingredient(s)** present in the product you are querying.

Hard copies of any of these documents may also be obtained by contacting AMEC Environment & Infrastructure, attn. Stephen Herzog, (978) 392-5335 or by email at stephen.herzog@amec.com.

APPENDIX B

Maps of Right-of-Way and Sensitive Areas Not Readily Identifiable in the Field

Maps of sensitive areas along the right-of-way which have been updated for 2013 are available for download via a public ftp site (similar to an internet web site). To access the maps, open a Windows explorer window and enter the following text in the address bar:

`ftp://pvrryop:railroad@amftp.amec.com`

(user name is pvrryop; password is railroad)

If you have problems accessing the maps, or would like to request printed paper maps for your town, please contact AMEC Environment & Infrastructure, att: Stephen Herzog, (978) 392-5335, or by email at stephen.herzog@amec.com.